

EXHIBIT H



Deposition of:
William Merklin

December 13, 2019

In the Matter of:
**Town of Hempstead v. United States of
America et al.**

Veritext Legal Solutions
800-734-5292 | calendar-dmv@veritext.com |

1 UNITED STATES DISTRICT COURT
2 EASTERN DISTRICT OF NEW YORK
3 Index No. 2:16-cv-03652-ENV-ST
4 -----x

5 TOWN OF HEMPSTEAD,
6 Plaintiff,

7
8 -against-

9 UNITED STATES OF AMERICA, DEPARTMENT
10 OF THE NAVY, NORTHROP GRUMMAN
11 CORPORATION, NORTHROP GRUMMAN SYSTEMS
12 CORPORATION, COVESTRO LLC, BAYER
13 CORPORATION, OCCIDENTAL CHEMICAL
14 CORPORATION, THE KASPER (1977)
15 IRREVOCABLE TRUST FOR THE BENEFIT OF
16 CHARLES B. KASPER AND RICHARD J.
17 KASPER; SANDERINA R. KASPER, as Trustee
18 of the Kasper (1977) Irrevocable Trusts
19 for the Benefit of Charles B. Kasper
20 and Richard J. Kasper; MARTIN STALLER,
21 PARVIZ NEZAMI, JEROME COGAN, LAWRENCE
22 COHEN and AMERICAN DRIVE-IN CLEANERS OF
23 BETHPAGE, INC.,

24 Defendants.

25 -----x

December 13, 2019
10:15 a.m.

DEPOSITION of WILLIAM D. MERKLIN, P.E.

1
2 DEPOSITION of WILLIAM D. MERKLIN,
3 P.E., an expert witness herein, taken by
4 the Defendants, pursuant to Notice, held
5 at the offices of Jaspan Schlesinger,
6 LLP, 300 Garden City Plaza, Fifth Floor,
7 Garden City, New York, before Lisa H.
8 MacDonald, RPR, and Notary Public of the
9 State of New York.

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

A P P E A R A N C E S :

JASPAN SCHLESINGER, LLP
300 Garden City Plaza, fifth floor
Garden City, New York 11530

Attorneys for Plaintiff and
non-party witness

BY: SCOTT B. FISHER, ESQ.
LISA A. CAIRO, ESQ.

U.S. ATTORNEY'S OFFICE
EASTERN DISTRICT OF NEW YORK
610 Federal Plaza
Central Islip, New York 11722

Attorneys for Defendants
UNITED STATES OF AMERICA and
DEPARTMENT OF THE NAVY
BY: ROBERT W. SCHUMACHER, II, ESQ.

HOLLINGSWORTH, LLP
1350 I Street, N.W.
Washington, DC 20005

Attorneys for Defendants
NORTHROP GRUMMAN CORPORATION
and NORTHROP GRUMMAN SYSTEMS
CORPORATION

BY: FRANK LEONE, ESQ.

SIVE, PAGET & RIESEL, P.C.
560 Lexington Avenue
New York, New York 10022

Co-Attorneys for Defendants
NORTHROP GRUMMAN CORPORATION
and NORTHROP GRUMMAN SYSTEMS
CORPORATION

BY: SAHANA RAO, ESQ.

A P P E A R A N C E S :

WHITEMAN OSTERMAN & HANNA

One Commerce Plaza

Albany, New York 12260

Attorneys for Defendant

OCCIDENTAL CHEMICAL

CORPORATION

BY: MICHAEL G. STERTHOUS, ESQ.

COUGHLIN DUFFY, LLP

350 Mount Kemble Avenue

Morristown, New Jersey 07920

Attorneys for Defendants

COVESTRO, LLC and BAYER

CORPORATION

BY: JOSEPH AMOROSO, ESQ.

ALSO PRESENT:

Anton Evangelista, Videographer

Genifer Tarkowski, Esq. (present via
telephone)

S T I P U L A T I O N S

IT IS HEREBY STIPULATED AND AGREED
by and between the attorneys for the
respective parties hereto that the filing
and sealing be and the same are hereby
waived.

IT IS FURTHER STIPULATED AND AGREED
that all objections except as to the form
of the question, shall be reserved to the
time of the trial.

IT IS FURTHER STIPULATED AND AGREED
that the within deposition may be signed
and sworn to before any notary public
with the same force and effect as though
signed and sworn to before this Court.

1 W.D. Merklin, P.E.

2 MR. VIDEOGRAPHER: Good
3 morning. We are going on the record
4 at 10:15 a.m. on December 13, 2019.
5 Please note that the microphones are
6 sensitive and may pick up whispering
7 and private conversations and
8 cellular interference. Please turn
9 off all cell phones or place them
10 away from the microphones as they can
11 interfere with the deposition audio.

12 Audio and video recording
13 will continue to take place unless
14 all parties agree to go off the
15 record.

16 This is media unit one of
17 the video recorded deposition of
18 William Merklin taken by counsel for
19 defendants in the matter of Town of
20 Hempstead versus United States of
21 America, et al, filed in the United
22 States District Court, Eastern
23 District of New York, case number
24 16-CV-03652(ENV)(SLT).

25 This deposition is being

1 W.D. Merklin, P.E.
2 held at Jaspan Schlesinger located at
3 300 Garden City Plaza, Garden City,
4 New York. My name is Anton
5 Evangalista from the firm Veritext
6 New York and I am the videographer.
7 The court reporter is Lisa MacDonald
8 from the firm Veritext New York.

9 I'm not authorized to
10 administer an oath. I'm not related
11 to any party in this action, nor am I
12 financially interested in the
13 outcome.

14 Counsel and all present in
15 the room and everyone attending
16 remotely will now state their
17 appearances and affiliations for the
18 record. If there are any objections
19 to proceeding, please state them at
20 the time of your appearance beginning
21 with the noticing attorney.

22 MR. LEONE: Frank Leone,
23 counsel for Northrup Grumman.

24 MR. SCHUMACHER: Robert
25 Schumacher from the U.S. Attorney's

1 W.D. Merklin, P.E.

2 office. Counsel for the United
3 States and the Navy.

4 And on the phone we have
5 Genifer Tarkowski, who is in-house
6 counsel with the Navy.

7 MS. RAO: Sahana Rao, Sive
8 Paget & Riesel for Northrup Grumman.

9 MR. STERTHOUS: Michael
10 Sterthous, White Osterman & Hanna on
11 behalf of Occidental Chemical.

12 MR. AMOROSO: Joseph Amoroso
13 from the law firm of Coughlin Duffy
14 on behalf of the Covestro defendants.

15 MS. CAIRO: Lisa Cairo for
16 Jaspan Schlesinger on behalf of the
17 plaintiff Town of Hempstead.

18 MR. FISHER: And Scott
19 Fisher, also Jaspan Schlesinger, also
20 on behalf of plaintiff Town of
21 Hempstead.

22 MR. VIDEOGRAPHER: And will
23 the court reporter please swear in
24 the witness.

25 W I L L I A M D . M E R K L I N ,

1 W.D. Merklin, P.E.

2 after having first been duly sworn by a
3 Notary Public of the State of New York,
4 was examined and testified as follows:

5 MR. VIDEOGRAPHER: Thank
6 you. We may proceed.

7 EXAMINATION BY

8 MR. LEONE:

9 Q Mr. Merklin, could you state
10 your name and your business address for
11 the record, please?

12 A William Merklin, I'm with
13 D&B Engineers and Architects located at
14 330 Crossways Park Drive in Woodbury, New
15 York.

16 Q All right. Today I'll be
17 asking you some questions and if you
18 don't hear or understand a question, will
19 you let me know?

20 A Yes.

21 Q All right. So I'll assume
22 if you're answering it that you
23 understood the question and you have
24 knowledge to answer the question, okay?

25 A Okay.

1 W.D. Merklin, P.E.

2 A Yeah. Generally the
3 Commissioner contacted me and said we
4 have high concentrations, we are
5 concerned about them and would request
6 the proposal for me to prepare plans and
7 specs.

8 Q And then Exhibit 5 is a
9 proposal dated June 11, 2013. Do you
10 recall in connection with that date of
11 June 11, 2013 if you had been contacted
12 weeks earlier, months earlier, years
13 earlier?

14 A I don't recall specifically,
15 but it would have been some time prior to
16 preparing the proposal.

17 Q So after you -- you
18 indicated the Commissioner and that's
19 Commissioner Reinhardt?

20 A Correct.

21 Q And I guess, for the record,
22 who is Commissioner Reinhardt?

23 A Commissioner Reinhardt is
24 the Commissioner of the Town of Hempstead
25 Department of Water.

1 W.D. Merklin, P.E.

2 Q And he told you there were
3 high levels of contaminants in those
4 wells?

5 A I don't recall what he told
6 me specifically, but he would have
7 expressed concern about the levels of
8 contamination and then asked for a
9 proposal to design a treatment facility.

10 Q Did you have any discussions
11 prior to preparing the proposal whether a
12 treatment facility was necessary?

13 A I don't recall.

14 Q So your report indicates
15 starting in 2012 routine water quality
16 samples began to exhibit low levels of
17 contamination. When did you learn that?

18 A During the preparation of
19 the design report.

20 Q Do you know what those
21 levels were?

22 A I don't recall specifically.

23 Q And do you know if prior to
24 contacting you Commissioner Reinhardt
25 took any actions regarding those wells?

1 W.D. Merklin, P.E.

2 A I don't know.

3 Q The next sentence in
4 paragraph 2 at page 1 indicates "By the
5 middle of 2013, the contamination levels
6 increased to concentrations which caused
7 the Town to remove wells 7A and 8A of
8 service -- from service."

9 Is that -- is that accurate?

10 A That's not what it says.

11 Q Okay. Let me reread it.
12 "By the middle of 2013, the contamination
13 levels increased to concentrations which
14 caused the Town to remove wells 7A and 13
15 from service." Is that correct?

16 A Yes.

17 Q Was it well 7A that was
18 removed from service in the middle of
19 2013 or well --

20 A It says that both wells were
21 removed.

22 Q What about well 8A?

23 A I'm not sure.

24 Q Do you know what the
25 contamination levels that caused those

1 W.D. Merklin, P.E.

2 wells to be removed from service were?

3 A I don't know.

4 Q Has Freon 113 ever been
5 found in well 7A?

6 A I don't know.

7 Q Has TCE ever been found in
8 well 7A?

9 A I don't know.

10 Q So as you sit here, do you
11 have a recollection of what the chemicals
12 of concern were in any of the wells?

13 A Well, I think we have that
14 here in page 2. Well, wait a minute.
15 Let's see. I'm sorry. Page 3.

16 Q All right. Other than what
17 is set out there, do you have any
18 recollection of the levels that were
19 found in the wells and when they were
20 identified?

21 A I don't recall that
22 specifically.

23 Q Were you involved with the
24 decision to shut down wells -- well 7A?

25 A No.

1 W.D. Merklin, P.E.

2 Q Do you know if well 7A has
3 ever had concentrations of any chemical
4 of concern over 50 percent of MCLs for
5 any chemical?

6 A I don't know.

7 Q Do you know if COCs were
8 present in well 8A in June 2013?

9 A If what was?

10 Q Strike that.

11 Are you familiar with the
12 term contaminant of concern or COCs?

13 A Contaminant of concern?

14 Q Yes.

15 A I'm not familiar with that
16 term.

17 Q Then we won't use that.

18 Were any VOCs present in
19 well 8A in June of 2013?

20 A I don't know.

21 Q Go back to page 1, paragraph
22 2. The third sentence of the paragraph
23 says "Since the continued operation of
24 these wells was critical to meet the
25 demands of the Levittown Water District,

1 W.D. Merklin, P.E.

2 the design and construction of a
3 treatment facility was required."

4 Was it the Town's decision
5 that a treatment facility was required or
6 was it yours?

7 MR. FISHER: Objection. You
8 can answer.

9 A I think the Town and D&B
10 discussed it and came to that conclusion
11 together.

12 Q Is there any documentation
13 of that discussion?

14 A No.

15 Q Do you know if the Town
16 considered any options other than
17 treatment facilities for those wells?

18 A We would have talked about
19 other alternatives, yes.

20 Q Do you recall specific
21 discussions?

22 A No.

23 Q And were those discussions
24 documented in any way?

25 A No.

1 W.D. Merklin, P.E.

2 Q And were discussions about
3 alternatives -- strike that.

4 When you say we would have
5 talked about that, is that you and
6 Commissioner Reinhardt?

7 A Yes.

8 Q Was anyone else involved in
9 those discussions?

10 A I don't recall.

11 Q Was there any public notice
12 of those discussions or evaluations of
13 alternatives for treatment?

14 A I --

15 MR. FISHER: Objection. You
16 can answer.

17 A I don't believe so.

18 Q Then in paragraph 2 it says
19 "The Town retained D&B to prepare
20 necessary plans and specifications."

21 What was the process the
22 Town used to retain D&B?

23 A We prepared the proposal,
24 the Commissioner then puts it on the
25 agenda for the Town Board to consider and

1 W.D. Merklin, P.E.

2 then the Town Board approves it and
3 authorizes us and we execute an agreement
4 and then we proceed with the work.

5 Q What does the agreement look
6 like?

7 A I'm not sure in this case.

8 Q Do you know if a written
9 agreement has been produced in this
10 litigation?

11 A In this case the letter,
12 itself, may have been the agreement.

13 Q The proposal letter?

14 A Yeah.

15 Q And then there was a Town
16 Board acceptance of it?

17 A Yeah.

18 Q All right.

19 A Right. So there was a
20 resolution.

21 Q Okay. So you're not aware
22 of any other contract document, if you
23 will?

24 A No. I think back when this
25 was done, my proposal was the agreement.

1 W.D. Merklin, P.E.

2 Currently when I do work for the Town,
3 there's a separate agreement that we
4 prepare.

5 Q Do you know if the Town
6 contacted anyone else to get a proposal
7 to address these wells?

8 A I don't know.

9 Q Was it posted for bidding or
10 anything like that?

11 A No.

12 Q Why not?

13 A I wouldn't know.

14 Q Does D&B have any sort of
15 overall contract with the Town of
16 Hempstead or with Levittown Water --
17 strike that. It wouldn't be with that.
18 Strike that.

19 Does D&B have any sort of
20 overall contract with the Town of
21 Hempstead for doing work on -- at these
22 specific projects or is it a
23 project-by-project thing?

24 A We have an on call contract
25 with the Town that would allow us to do

1 W.D. Merklin, P.E.

2 small assignments for the Commissioner,
3 but usually a project of this size would
4 be based on a specific proposal.

5 Q Looking at the last sentence
6 of paragraph 2 on the first page of
7 Exhibit 3, your expert report, it says
8 "Since PTAS is a common treatment process
9 for the removal of the detected
10 contaminants, it was determined to be the
11 best choice for implementation in this
12 case;" correct?

13 A Yes.

14 Q And who made that
15 determination?

16 A D&B.

17 Q Was there a specific
18 document that set forth an analysis in
19 determining the best choice for
20 implementation?

21 MR. FISHER: Objection. You
22 can answer.

23 A The basis of design reports.

24 Q At the time -- well, strike
25 that.

1 W.D. Merklin, P.E.

2 When was the decision to use
3 PTAS made?

4 A During the preparation of
5 the basis and design reports.

6 Q And is the process that was
7 used to reach that conclusion set out in
8 those reports?

9 A I believe it is.

10 Q Was there any public notice
11 or participation in the issue of
12 determining the appropriate treatment
13 systems for the wells?

14 A No.

15 MR. LEONE: Is this a good
16 time to take a break?

17 MR. VIDEOGRAPHER: Yes.

18 MR. LEONE: Is that good?
19 So why don't we take a short break?

20 MR. VIDEOGRAPHER: We are
21 now off the record. The time on the
22 video monitor is 11:45 a.m.

23 (A short recess was taken.)

24 MR. VIDEOGRAPHER: We are
25 now back on the record. The time on

1 W.D. Merklin, P.E.

2 the video monitor is 12:20 p.m.

3 Q Mr. Merklin, this morning
4 you mentioned that Drive-In Cleaners had
5 provided information that convinced you
6 and your colleague that their site was
7 not a source of contamination at well 7A,
8 8A and 13.

9 Do you recall what that
10 information was?

11 A I don't.

12 Q All right. Looking now at
13 your expert report, page 2, it has a
14 section called relevant regulatory
15 requirements and it says first that "A
16 public water supplier is required to
17 comply with all requirements of the New
18 York State Department of Health Sanitary
19 Code;" correct?

20 A Yes.

21 Q Is that Title 10 Part 5
22 Subpart 5-1 public water systems?

23 A Yes.

24 Q And then it says that "The
25 water supplier has to begin the process

1 W.D. Merklin, P.E.
2 of planning for the implementation of
3 treatment when the contaminant
4 concentration exceeds 50 percent of the
5 MCL."

6 I think you testified that
7 that's not set forth in the sanitary code
8 though or is it?

9 A It's an industry standard.

10 Q But you can't identify where
11 that's set forth; correct?

12 A It's not set forth in the
13 code. It's just a standard, industry
14 standard.

15 Q Is there any publication,
16 any industry publication that sets forth
17 that standard?

18 A No.

19 Q And then the next sentence
20 says "In this case when any one of the
21 contaminants of concern exceeded 25 parts
22 per billion, TOH was required to begin
23 the planning and design of the
24 groundwater treatment facility."

25 Is that assuming an MCL of

1 W.D. Merklin, P.E.

2 five parts per billion?

3 A Yes.

4 And it's 2.5, not 25.

5 Q Oh, did I say 25?

6 A Yes.

7 Q I apologize. I take that
8 back then.

9 All right. So there is no
10 federal MCL -- EPA MCL for Freon 113; is
11 there?

12 A I don't know.

13 Q Do you know if there's a
14 state MCL for Freon 113?

15 A I believe there is.

16 Q Is it set forth in the
17 Sanitary Code Part 5-1?

18 A I'm not really sure.

19 Q What is the basis for your
20 belief that Freon has an MCL of five
21 parts per billion?

22 A I just don't have it in
23 front of me, but there should be a list
24 that has that information in it.

25 Q Do you know if it's a state

1 W.D. Merklin, P.E.

2 list or a federal list?

3 A There is a state list and
4 there's also the health department
5 monitoring requirements list that I
6 talked about earlier, which is the list
7 that we generally use.

8 Q And when you say again
9 health department, that's the Nassau
10 County Health Department; correct?

11 A Nassau County, yes.

12 Q Then the last sentence of
13 that paragraph talks about removal of a
14 well from service when the concentrations
15 is 80 percent or higher than the MCL.

16 Is that also based on the
17 industry -- unwritten industry standard
18 that you mentioned?

19 A That's based on the Nassau
20 County monitoring requirements annual
21 letter where they recommend that a well
22 is removed at 80 percent.

23 Q And it's not based on the
24 sanitary code; correct?

25 A It's not on the State

1 W.D. Merklin, P.E.

2 Sanitary Code. It's the Nassau County
3 Department of Health monitoring
4 requirements letter.

5 Q Is it a requirement of
6 Nassau County Department of Health or is
7 it a recommendation?

8 A It's a recommendation.

9 Q All right. So in your
10 report where it says "The sanitary code
11 also requires a public health" -- excuse
12 me. Let's start again.

13 In your report in the last
14 sentence of the first full paragraph
15 under relevant regulatory requirements
16 where it says "The sanitary code also
17 requires a public water supplier to
18 remove a well from service when the
19 concentration of one of these
20 contaminants is 80 percent or higher than
21 the MCL," that's not correct that it's
22 the sanitary code; is it?

23 A It's not the sanitary code.
24 It should be the Nassau County Department
25 of Health monitoring requirements letter.

1 W.D. Merklin, P.E.

2 Q That would be a Nassau
3 County Department of Health
4 recommendation rather than a requirement;
5 correct?

6 A That's correct.

7 Q The next paragraph talks
8 about the well source capacity. It says,
9 "The sanitary code requires the well
10 source capacity for a public supply well
11 to be capable of meeting the maximum day
12 demand with the largest well out of
13 service."

14 What is -- well, first of
15 all, is that the Sanitary Code Section
16 5-1 we were talking about that governs
17 public water supplies?

18 A It is, but to be more
19 specific, the sanitary code makes
20 reference to what we call the 10 state
21 standards, which is an abbreviated title,
22 the full title is much longer, but those
23 10 state standards are where that
24 requirement is dictated.

25 Q And so what does that mean

1 W.D. Merklin, P.E.

2 when you say the well source capacity has
3 to be capable of meeting the maximum day
4 demand? What does that mean?

5 A Every month a water supplier
6 prepares a report that they submit to the
7 DEC which identifies their pumpage, their
8 average pumpage and their maximum pumpage
9 the maximum day for each month. So
10 typically a maximum day would happen in
11 July or August most likely when it's hot
12 outside.

13 So that information, we look
14 at that say for five or ten years prior
15 when we do a design report and we look
16 for the maximum day of -- within those
17 period of years, five or ten years. So
18 that's the maximum day is what we refer
19 to it as.

20 Q And then the requirement
21 about one -- excuse me -- with the
22 largest well out of service, is that part
23 of the 10 state standard, too?

24 A That's part of the 10 state
25 standards, yes.

1 W.D. Merklin, P.E.

2 Q And then that paragraph
3 there on the bottom of page 2 relates to
4 the Table 1; correct?

5 A Portions of it relate to
6 Table 1, yes.

7 Q All right. So can you
8 explain what Table 1 depicts to me?

9 A Yeah. Table 1 shows the
10 capacity of each of the wells in the
11 Levittown Water District, each of the
12 operating wells at the time that the work
13 was done.

14 So it shows that there is a
15 total capacity of 13.55 MGD with all of
16 those wells. If you were to remove the
17 largest well from that calculation, it
18 would result in a total capacity of 11.52
19 million gallons per day with the largest
20 well out of service.

21 And then we have one more
22 line on there which basically what we are
23 showing is once wells 8 and 13 were
24 removed from service because of the
25 contamination, the resulting calculation

1 W.D. Merklin, P.E.

2 for the capacity with the largest well
3 out of service goes down to 7.9 million
4 gallons per day.

5 Q What does actual capacity
6 measure?

7 A It's the actual output that
8 the well pump puts out.

9 Q And then you have the total
10 with wells 8A and 13 out of service. Did
11 you consider 7A being out of service as
12 well?

13 A In this calculation we have
14 not considered that because well 7A was
15 not yet out of service.

16 Q When you do this -- strike
17 that.

18 Did you prepare Table 1 just
19 for your expert report or was that part
20 of your work in doing the design for
21 wells 7A, 8A and 13?

22 A I prepared this for the
23 report, but I would think there was
24 something similar in the design report,
25 but I don't know if the numbers are

1 W.D. Merklin, P.E.

2 exactly the same.

3 This -- this table is a
4 snapshot of what the situation actually
5 was at the time that the design was being
6 prepared.

7 Q And when was that time? The
8 first report I believe was August 2014.
9 Is that the time period or was there a
10 different time period that this table is
11 supposed to represent?

12 A Right. It would have been
13 the -- around the end of 2013 or the
14 beginning of 2014. But just to be more
15 clear, it's that time frame, but also
16 with the assumption that those two wells
17 have been removed from service.

18 So the actual chronology of
19 when they were removed from service, we'd
20 have to look at that.

21 Q Looking at page 3 of your
22 report, the section design and
23 implementation of PTAS for wells 7A, 8A
24 and 13, it indicates that those wells do
25 not require any treatment for contaminant

1 W.D. Merklin, P.E.

2 removal prior to commencing with this
3 project and that means they didn't
4 require any treatment for VOCs; correct?

5 A VOCs or anything else.

6 Q Now, in the third paragraph
7 in that section it talks about the three
8 wells in increasing concentrations of 1,1
9 Dichloroethane or 1,1 DCA, Freon 113 and
10 PCE observed in the wells, but those were
11 not each observed in each of the wells;
12 correct?

13 A That's right.

14 Q And they did not all have
15 increasing trends over that period; did
16 they?

17 A I don't know.

18 Q And they -- for example, 1,1
19 DCA, you can look at the numbers, I think
20 it was basically between half a part per
21 billion and 2 part per billion. Do you
22 consider that approaching the maximum
23 contaminant level of 5?

24 A No.

25 Q In the next paragraph for

1 W.D. Merklin, P.E.

2 well 13, we can look at the 2016 design
3 report, but I believe the highest level
4 of Freon 113 is 3.82 parts per billion.

5 Is that approaching the
6 maximum contaminant level of 5?

7 A Yes.

8 Q Do you know if in 2012, 2013
9 or 2014 the MCL was ever reached for any
10 of those chemicals in any of the wells?

11 A I don't know specifically,
12 but I believe that the well was removed
13 from service before that would have
14 happened because otherwise that would be
15 an MCL violation, which would require
16 public notification, which is something a
17 water supplier just would not want to do.

18 Q Did you conclude at any time
19 that the MCLs for any of the substances
20 had been exceeded prior to the wells
21 being taken off line?

22 A I don't believe that
23 happened.

24 Q Did you ever prepare a
25 report to the State I guess DEC or DOH

1 W.D. Merklin, P.E.

2 concerning well 7A, 8A or 13?

3 A You're talking about the
4 State Department of Health?

5 Q Yes.

6 A No.

7 Q And likewise you didn't do
8 any report for the State Department of
9 Environmental Conservation; correct?

10 A That's correct.

11 Q Are you familiar with the
12 Environmental Protection Agency's
13 national contingency plan?

14 A I am vaguely familiar.

15 Q Did you consult it in
16 preparing your design reports or doing
17 the work in this case?

18 A Yes.

19 Q How so?

20 A Well, we identified -- we
21 identified the fact that there was some
22 trigger values in there for one of the
23 wells. I think it was for well 13. I
24 may be mistaken about that.

25 One of the wells had -- was

1 W.D. Merklin, P.E.

2 identified as potentially to be impacted
3 and that there were these trigger values
4 that would have resulted in some -- I'm
5 not sure what it would have resulted in
6 actually. I apologize.

7 Q Okay. All right. Oh, I
8 see. So you're talking about, and we'll
9 look at it in a second, the public water
10 supply contingency plan that the Navy and
11 Grumman prepared?

12 A Right.

13 Q That set forth those trigger
14 values?

15 A Correct.

16 Q Okay. My question was about
17 the federal regulations that EPA has
18 adopted implementing Superfund called the
19 national contingency plan.

20 A I apologize. No, I'm not
21 familiar with that.

22 Q And so you didn't make any
23 effort to comply with the national
24 contingency plan in doing your work in
25 this case?

1 W.D. Merklin, P.E.

2 A No.

3 MR. FISHER: Objection.

4 Q Let's look at Exhibit 5.

5 This is a -- this is the proposal that
6 you mentioned for engineering services;
7 correct?

8 A Yes.

9 Q And your -- if I understand
10 correctly because you regard this as --
11 strike that.

12 If I understand this
13 correctly, because the Department of
14 Water regards this as a professional
15 contract, it doesn't have to go through
16 the bidding procedures that govern local
17 government; is that correct?

18 A I don't know.

19 Q Previously we marked an
20 exhibit in Mr. Reinhardt's deposition and
21 that was marked as Exhibit 9 in the case
22 and this appears to be a similar letter,
23 but it has a date of May 3, 2013.

24 Do you know why there are --
25 why this letter has two different dates?

1 W.D. Merklin, P.E.

2 A I don't know why.

3 Q Well, let's go with your
4 Exhibit 5 then. So there's a table that
5 has sampling results from the relative
6 wells on page 1; correct?

7 A Yes.

8 Q Do you know where those
9 results came from?

10 A They would have been
11 provided by the Town.

12 Q And it indicates that Freon
13 113 was found in well 13, but not in 7A
14 or 8A; correct?

15 A Yes.

16 Q And it doesn't indicate that
17 Trichloroethylene was found in any of the
18 wells; does it?

19 A It does not.

20 Q And, in fact, of the four
21 substances, only Freon 113 was found in
22 well 13 and the other three were only
23 found at well 7A and 8A; correct?

24 A That's correct.

25 Q Did you reach any conclusion

1 W.D. Merklin, P.E.

2 at that time as to the cause of those
3 different patterns of contamination?

4 MR. FISHER: Objection. You
5 can answer.

6 A At this time we were just
7 writing a proposal, so we had no real
8 detailed knowledge.

9 Q Did you ever determine where
10 the Xylene that's identified in well 7A
11 and 8A came from?

12 A I don't know.

13 Q So for wells 7A and 8A, it
14 indicates the contaminants detected in
15 these wells are currently at low
16 concentrations and can be effectively
17 removed using granulated activated carbon
18 filtration; correct?

19 A Yes.

20 Q And so if you have a choice,
21 is the preference for GAC as opposed to
22 PTAS?

23 A If that was viable, it would
24 be preferable.

25 Q Why is that?

1 W.D. Merklin, P.E.

2 A It's lower cost to construct
3 and it takes less time to construct.

4 Q Eventually it was determined
5 to use PTAS for both 7A and 8A though;
6 correct?

7 A Yes.

8 Q Was that your decision?

9 A Yes.

10 Q And why was that?

11 A Because of the concerns
12 about Freon 113 potentially showing up.

13 Q Do you know if Freon 113 has
14 ever been detected in well 7A?

15 A I don't know.

16 Q Do you know if it was ever
17 detected in well 8A?

18 A I don't know.

19 Q That paragraph says
20 "However, the source of this
21 contamination is not currently known,
22 therefore the potential maximum influent
23 concentration is not known;" correct?

24 A Yes.

25 Q If you had not concluded

1 W.D. Merklin, P.E.

2 that the Northrup Grumman/NWIRP site was
3 the source of contamination at well 7A
4 and 8A, how would you have determined the
5 design criteria for the well?

6 MR. FISHER: Objection. You
7 can answer.

8 A If it -- if it wasn't
9 identified?

10 Q Correct. You indicated
11 sometimes you can't identify the source
12 of contamination at a well. If for 7A
13 and 8A there was -- you hadn't identified
14 a source, how would you determine the
15 design criteria?

16 A We did -- we did identify a
17 source, so I'm not really sure, you know,
18 how would I answer that because it's just
19 a hypothetical. I don't know how to
20 answer it.

21 Q I'm allowed to ask experts
22 hypotheticals.

23 A All right.

24 Q Can you answer the question?

25 A Well, we would have based it

1 W.D. Merklin, P.E.

2 on just the results we had in the well I
3 guess.

4 Q Would you have chosen TCE as
5 the design parameter in that case?

6 A If all we had were these
7 three contaminants, we would have picked
8 whichever one is either the most
9 difficult to remove or at the highest
10 concentration. We would have looked at
11 each one and then probably assumed.
12 There was sort of like a rule of thumb
13 that the Nassau County Department of
14 Health has used in the past where they
15 look for five times the maximum
16 concentration that you've ever seen, so
17 we would possibly have applied that rule.

18 It's difficult for me to
19 answer because I don't have all of those
20 details in front of me.

21 Q That Nassau County
22 Department of Health rule of thumb, is
23 that set forth in regulations or
24 standards or is that just an --

25 A No. That's just based on

1 W.D. Merklin, P.E.

2 experience from comments we may have
3 received from them over the years. It's
4 really just a rule of thumb. It's not a
5 code.

6 Q And so on page 2 of Exhibit
7 5, you included an estimated construction
8 cost; is that correct?

9 A Yes.

10 Q It was 2,300,000 for well
11 7A, 8A and then 1.8 million for well 13?

12 A Yes. Each one of those is
13 with the assumption that the construction
14 would begin at a certain year.

15 Q And how did you reach those
16 numbers?

17 A I don't remember if we did
18 any kind of detailed cost estimate, but
19 it would probably have just been based on
20 other recent projects of similar size.

21 Q And then -- actually, did
22 you prepare a basis for that estimate and
23 some sort of written document that you
24 prepared for the Town or did you just do
25 this letter?

1 W.D. Merklin, P.E.

2 A Yeah. I don't recall
3 whether we did or did not do that.

4 Q All right. And then the
5 next section is engineering proposal,
6 scope of services and that is -- that
7 sets out the work that D&B is proposing
8 to do on this project?

9 A Yes.

10 Q And does that basically
11 comport with the work that D&B did or are
12 there things set out here that were
13 important that you didn't do or that were
14 added?

15 A We did do everything that's
16 on here. We also did some additional
17 design work that's not on here.

18 Q What was the -- what did the
19 additional design work involve?

20 A At the time that we were
21 preparing the basis of design report, the
22 Health Department began enforcing a new
23 regulation with respect to air emissions,
24 so we had to evaluate alternatives and
25 prepare a design for the treatment of the

1 W.D. Merklin, P.E.

2 off-gas from the packed tower.

3 Q And then on the last page
4 there's the estimate of your or there's
5 the scope of services not to exceed the
6 following fees and those are for D&B;
7 correct?

8 A Yes.

9 Q Were those -- was that
10 amount of \$459,000 exceeded before the
11 end of the project?

12 A Yes.

13 Q Why was that?

14 A Because of the additional
15 design work.

16 Q Was there a subsequent
17 submission to the Town and approval from
18 the Town for the additional funding?

19 A No.

20 Q Why not?

21 A Well, part of the additional
22 cost was related to that design, extra
23 design work and part of it may be to our
24 own inefficiencies. We haven't made that
25 submittal to them --

1 W.D. Merklin, P.E.

2 Q Oh.

3 A -- because the way the Town
4 likes to work is they want the whole
5 project to be done so if there's
6 additional cost both in construction or
7 engineering that it's brought to the Town
8 Board one time and so those contracts had
9 to be closed out before we could do that.

10 Q Let me just ask you looking
11 at your expert report, Exhibit 3, on page
12 5 and in the third full paragraph and in
13 the sixth full paragraph it sets out the
14 total costs for design and construction
15 of the PTAS for wells 7A and 8A and then
16 the total cost for design and
17 construction of the PTAS for well 13.

18 Is that the final cost or
19 might there be additional costs?

20 A That was the final cost at
21 the time of the expert report. It is
22 possible that there would be some
23 additional costs when the contracts are
24 finally closed out.

25 Q And that total cost for each

1 W.D. Merklin, P.E.

2 of those includes the D&B fees; correct?

3 A Yes.

4 Q Do you know at the time D&B
5 made its proposal in May or June of 2013
6 if the Town had contacted the Navy or
7 Northrup Grumman about this project?

8 A I don't know.

9 Q Do you know if they had
10 contacted the New York State DEC or the
11 New York State Department of Health or
12 the Nassau County Department of Health?

13 A I don't know.

14 Q Looking at our next
15 document, I'll mark this as Exhibit 10.

16 (The above-referred-to
17 resolution was marked as Merklin
18 Exhibit 10 for identification as of
19 this date.)

20 Q This is a document that was
21 produced by the Town in this litigation.
22 It's a resolution authorizing the Board
23 of -- excuse me -- authorizing the
24 Department of Water to accept your
25 proposal, although here the proposal is

1 W.D. Merklin, P.E.

2 stated as being dated May 3, 2013;

3 correct?

4 A Yes.

5 Q Do you recall, other than
6 the proposal, was any other information
7 provided to the Town for its -- to the
8 Town Board for its consideration?

9 A I don't know.

10 Q Did you make any kind of
11 presentation or did the Town Department
12 of Water handle that?

13 A The Town Department of Water
14 handled it.

15 Q Do you know if there was any
16 information to the public given out about
17 the proposal that D&B had prepared?

18 A I don't know.

19 THE WITNESS: Can we turn
20 the heat down a little bit?

21 MR. STERTHOUS: Are you
22 talking to Frank?

23 MR. LEONE: No. I know what
24 you were talking about.

25 THE WITNESS: You're

1 W.D. Merklin, P.E.

2 grilling me.

3 Q And since this resolution of
4 June 18, 2013, are you aware of any
5 documentation that's been provided to the
6 Town Board concerning the project?

7 A No.

8 Q The second whereas clause of
9 the resolution that's Exhibit 10 says
10 "Whereas wells number 7A, 8A and 13 in
11 the Levittown Water District are located
12 in close proximity to a known plume of
13 contamination."

14 Did you provide that
15 information?

16 A No.

17 Q Do you know what plume is
18 being referred to here?

19 A I could speculate.

20 Q Okay. But you don't know?
21 I mean, you don't -- you weren't involved
22 in the drafting of this document?

23 A No, I was not.

24 Q So what happened next in the
25 project after the Town Board approved the

1 W.D. Merklin, P.E.

2 resolution hiring D&B? What did you do
3 next?

4 A I don't recall specifically,
5 but typical procedure would be to have a
6 kickoff meeting with the Town and to get
7 information from them, data, any project
8 preferences that they have.

9 Q What do you mean by data
10 project preferences?

11 A Well, data, I mean like the
12 water quality data, if they have any
13 drawings or specifications for the
14 existing facilities on the sites, things
15 that we would need to prepare our reports
16 and specifications.

17 Q Do you recall what the Town
18 provided to you?

19 A I don't remember exactly.

20 Q And so did you consider that
21 information in preparing the design
22 reports?

23 A Yes.

24 Q And you also prepared the
25 specifications, the contract documents

1 W.D. Merklin, P.E.

2 that we looked at that were marked as --
3 that were exhibits to your expert report?

4 A Yes.

5 Q And when were those -- when
6 were those prepared?

7 A I think the date is on the
8 front. Whatever that says.

9 Q All right. So for 7A and
10 8A, it's February 15. Excuse me. It's
11 February 2015 and for 13 it's November
12 2014. So that's after the design report
13 is prepared; correct?

14 A Yes.

15 Q And then so after you put
16 out the specifications, various
17 contractors bid on it and then the Town
18 selects the contractors?

19 A We review the bid results
20 and we make a recommendation for the
21 lowest qualified bidder.

22 Q And is that what you did in
23 this case?

24 A Yes.

25 Q And then do you, does D&B

1 W.D. Merklin, P.E.

2 then supervise the work of those -- of
3 those contractors?

4 A No.

5 Q Who does that?

6 A They're not supervised by
7 anybody. We observe the work and we
8 confirm that the work is done in
9 accordance with the specifications.

10 Q Is there a general
11 contractor who oversaw the work of all
12 the contractors at the site?

13 A There's three prime
14 contractors in accordance with the New
15 York State Municipal Law, Wicks Law.

16 Q Uh-huh.

17 A So there was a general
18 construction, electrical construction and
19 plumbing contract -- plumbing
20 construction contract for each of the two
21 sites, so a total of six contracts.

22 Q And does the general
23 construction contractor hire its own
24 subcontractors?

25 A They would, yes, also hire

1 W.D. Merklin, P.E.

2 subs.

3 Q Were there -- strike that.

4 In your role with D&B
5 observing the work, were there any major
6 problems that you observed?

7 MR. FISHER: Objection, but
8 you can answer.

9 A I just don't recall if there
10 were or not.

11 Q Going back to your report on
12 page 4, which is Exhibit 3, the second
13 paragraph says "In June 2013, D&B was
14 retained by TOH to prepare a design
15 report as well as detailed plans and
16 specifications and obtain permits and
17 provide services during the construction
18 for a treatment facility suitable to
19 remove the contamination at wells 7A, 8A
20 and 13."

21 What permits were you
22 involved with getting?

23 A Well, Nassau County
24 Department of Health approval of the
25 design report, Nassau County Department

1 W.D. Merklin, P.E.
2 of Health approval of the plans and
3 specifications for construction, Nassau
4 County Department of Health approval
5 for -- to place the facility in
6 operation, Nassau County Department of
7 Health approval for reduced pressure zone
8 devices and I'm trying to remember.

9 We may have had to go to the
10 Nassau County Fire Marshal if there was a
11 diesel generator, but I don't remember if
12 that was the case here.

13 Q And the next paragraph,
14 paragraph 3, talks about what it
15 describes as a routine two mile radius
16 search and that's the EDR report that you
17 talked about earlier?

18 A Correct.

19 Q Why is two miles the limit?

20 A That's just our standard
21 procedure.

22 Q And then other than the EDR
23 document and your general knowledge of
24 the OU-2 plume, did you do any
25 investigation of potential sources of

1 W.D. Merklin, P.E.

2 contamination at wells 7A, 8A and 13?

3 A Well, we would have looked
4 for any other known sites of concern.

5 Q Was that process documented
6 in any way?

7 A No.

8 Q Did you consider the New
9 Cassel area as a potential source?

10 A I don't recall.

11 Q All right. On paragraph 3
12 it indicates that "No potential sources
13 were identified within the radius of the
14 search, but that data available at the
15 time of the report preparation indicated
16 the presence of the same constituents in
17 the Grumman plume as those observed by
18 wells 7A, 8A and 13."

19 And as we discussed, the
20 Grumman plume is also known as OU-2;
21 correct?

22 A Yeah.

23 Q And then when it refers to
24 the Grumman site, is that referring to
25 the Grumman and Navy NWIRP property?

1 W.D. Merklin, P.E.

2 A I think it says specifically
3 originating from the Northrop Grumman
4 Systems Corporation site in Bethpage and
5 then there's an ID number.

6 Q Do you know if that includes
7 the Navy NWIRP property?

8 A I don't know.

9 Q Do you know if the Hooker
10 RUCO property adjacent to the NWIRP
11 property contributes to the OU-2 plume?

12 A I don't know.

13 Q You're not giving testimony
14 as to the specific source of contaminants
15 at the Levittown Water District wells as
16 to whether they come from the Northrup
17 Grumman property and/or the Navy,
18 adjoining Navy property and/or any other
19 property; correct?

20 A No. I'm only -- I'm only I
21 guess stating that we looked at certain
22 data and used it to make a decision for
23 the decision criteria.

24 Q You indicate on paragraph 3
25 that the Grumman site was known to exist

1 W.D. Merklin, P.E.

2 upgradient approximately two and-a-half
3 miles north northeast from wells 7A, 8A
4 and 13?

5 A Yes.

6 Q How did you determine that
7 it was upgradient?

8 A Based on the data available
9 from the various studies that had been
10 done on the plume.

11 Q Do you recall any specific
12 studies that you looked at that had that
13 data?

14 A I don't recall specifically.

15 Q Did you document those
16 studies in any way, make a list of the
17 studies you were relying on or anything
18 like that?

19 A No.

20 Q Did you maintain a file of
21 those studies?

22 A Yes.

23 Q Do you have that file?

24 A I think it was provided as
25 part of our subpoena response.

1 W.D. Merklin, P.E.

2 Q Would all of the documents
3 that you relied on in determining that
4 the Grumman site was upgradient from the
5 LWD wells, would those all have been
6 included in your subpoena response?

7 A Yes.

8 Q Okay. But you didn't do
9 any -- strike that.

10 Did you take any notes or
11 anything from those documents indicating
12 the ones that you relied on or
13 information that you obtained from them?

14 A No.

15 Q Did anybody at D&B do that?

16 A No.

17 Q Now it says the -- your
18 report, paragraph 3, the last sentence
19 says "The data available at the time of
20 the report preparation indicated the
21 presence of the same constituents in the
22 Grumman plume as those observed in wells
23 7A, 8A and 13. The data is summarized
24 and included in the design reports
25 attached as Exhibits C and D;" correct?

1 W.D. Merklin, P.E.

2 A Yes.

3 Q So is all the data that you
4 relied on for that information included
5 in those design reports?

6 A I'm not really sure.

7 Q Now, when it says the same
8 constituents, did you do any evaluation
9 of the relative concentrations of the
10 various chemicals that were found at the
11 LWD public supply wells and that were
12 found in the OU-2 plume?

13 A No.

14 Q Now, in terms of your expert
15 report, have you considered any new
16 information that was not summarized and
17 included in the design reports as to the
18 potential source of contamination at the
19 LWD wells?

20 A No.

21 Q You mentioned you had worked
22 on 20 projects in Long Island involving
23 VOC contamination. Was Trichloroethylene
24 present at some or most of those
25 projects?

1 W.D. Merklin, P.E.

2 MR. FISHER: Objection. You
3 can answer.

4 A Definitely on some of them,
5 yes.

6 Q Was Freon 113 present at any
7 of those projects?

8 MR. FISHER: Objection. You
9 can answer.

10 A Yes.

11 Q Which one or ones?

12 A I don't recall.

13 Q Neither TCE nor Freon 113
14 are unique to the Northrup Grumman/NWIRP
15 property; correct?

16 A That's true.

17 Q Do you know if TCE is the
18 primary contaminant in the OU-2 plume?

19 A I don't know.

20 Q You never did that
21 evaluation?

22 A No.

23 Q Let's go back and talk about
24 LWD wells 1 and 2. Do you recall what
25 contamination was present in those wells?

1 W.D. Merklin, P.E.

2 A No.

3 Q You recall it's VOCs though?

4 A Yes.

5 Q Do you know the levels of
6 VOCs?

7 A No.

8 Q Do you know the sources of
9 VOCs?

10 A No.

11 Q How about 5A and 5B, do you
12 know the levels of VOCs present in those
13 wells?

14 A No.

15 Q And do you know the sources?

16 A No.

17 MR. FISHER: 5A and 5B or 5A
18 and 6B?

19 MR. LEONE: 5A and 6B.

20 Thank you.

21 A Yes, that's correct.

22 Q How did you determine the --
23 say for wells 1A and 2A, how did you
24 determine the design criteria for the
25 treatment system without knowing the

1 W.D. Merklin, P.E.

2 sources?

3 A I don't recall.

4 Q And you haven't done any
5 work for the Hicksville Water District;
6 correct?

7 A That's correct.

8 Q So then the fourth paragraph
9 on Exhibit 3 says "Based on the publicly
10 available monitoring well data, the
11 maximum VOC concentration observed in the
12 Grumman plume was 420 parts per
13 billion" -- "was 420 PPB of
14 Trichloroethylene TCE" -- excuse me --
15 "of Trichlorethylene TCE."

16 Where did that number come
17 from?

18 A From one of the monitoring
19 wells.

20 Q Do you recall which one?

21 A No.

22 Q Was it identified in your
23 expert report?

24 MR. FISHER: Objection, but
25 you can answer.

1 W.D. Merklin, P.E.

2 A No. It was not.

3 Q Was it identified in your
4 design reports?

5 A No.

6 Q Why not?

7 A I don't know.

8 Q If that number was going to
9 be the basis for the design of the
10 treatment system, did you not think it
11 important to identify the source of that
12 information?

13 MR. FISHER: Objection. You
14 can answer.

15 A In hindsight that makes
16 sense, sure.

17 Q That wasn't an issue that
18 was raised at the time?

19 A It was.

20 Q How was it discussed?

21 A It was a comment from the
22 Nassau County Department of Health in
23 their review of our design report.

24 Q Did they ask what the basis
25 of the 420 PPB was?

1 W.D. Merklin, P.E.

2 A Yes.

3 Q And what was your response?

4 A That we identified the
5 monitoring well that we saw those
6 results.

7 Q You identified that
8 monitoring well in response to the Nassau
9 County Department of Health?

10 A Yes.

11 Q So that should be in the
12 correspondence?

13 A Yes, it is.

14 Q In paragraph 4 it then says
15 "Based on good engineering practice, a
16 water treatment facility must be designed
17 to treat the highest possible future
18 contamination concentration anticipated."

19 Where is that -- strike
20 that.

21 Is that good engineering
22 practice set out in any documents?

23 A No.

24 Q What does highest possible
25 future contamination concentration

1 W.D. Merklin, P.E.

2 anticipated mean?

3 A Well, we would look for the
4 highest concentration in a monitoring
5 well in this case and use that as the
6 design criteria.

7 Q How did you determine that
8 the -- strike that.

9 Did you determine that
10 monitoring well was upgradient of the LWD
11 wells?

12 A Yes.

13 Q Of all of them?

14 A Yes.

15 Q How did you make that
16 determination?

17 A Based on the data available
18 in the various reports for the plume.

19 Q Did you see any reports that
20 said that contamination from that well
21 would travel to the LWD wells 7A, 8A or
22 13 specifically?

23 MR. FISHER: Objection. You
24 can answer.

25 A I believe -- I'm not sure

1 W.D. Merklin, P.E.

2 how to answer that. I think that the
3 contingency plan that we talked about
4 earlier did indicate that one of these
5 wells could potentially be impacted by
6 the plume.

7 Whether or not it said
8 specifically by the plume at the location
9 of that monitoring well is -- you know, I
10 don't know. That's very hard to answer.

11 Q And the contingency plan,
12 the public water supply contingency plan
13 identified well 13; correct?

14 A I think that's correct.

15 Q It did not even mention
16 wells 7A or 8A correct?

17 A That's correct.

18 Q The contingency plan didn't
19 set forth levels that might be
20 anticipated to reach well 13 if the plume
21 did, in fact, reach well 13; correct?

22 A Could you rephrase that
23 question?

24 Q Sure. The contingency plan
25 didn't set forth the levels that could be

1 W.D. Merklin, P.E.

2 anticipated to reach well 13 if the OU-2
3 plume actually reached well 13?

4 A No. It indicated that if
5 concentrations were detected in the well
6 above a certain range, then that would
7 trigger certain events.

8 Q All right. But it didn't --
9 it didn't set forth design criteria for
10 any wellhead treatment at well 13;
11 correct?

12 A That's correct.

13 Q All right. The next
14 paragraph on page 4 says "Having
15 identified the anticipated contaminants
16 and estimating potential maximum
17 concentrations which could impact the raw
18 water in wells 7A, 8A and 13, D&B
19 evaluated alternatives for treatment;"
20 right?

21 A Yes.

22 Q And the identification of
23 the anticipated contaminants and maximum
24 potential was based on the well -- the
25 monitoring well that had 420 parts per

1 W.D. Merklin, P.E.

2 billion of TCE; correct?

3 A Yes.

4 Q Then it indicates that
5 because of the high concentration of TCE
6 observed in the plume monitoring wells
7 and the presence of Freon 113, GAC was
8 not considered a viable option for
9 treatment and it mentions data provided
10 by Calgon; correct?

11 A Yes.

12 Q Was that data included in
13 the design reports?

14 A No.

15 Q Was it included in the
16 documents that D&B produced?

17 A No.

18 Q Can you identify what that
19 data is?

20 A It was not data specifically
21 for this project. As we discussed
22 earlier, it's data that was provided some
23 time in the past.

24 Q And you did not produce that
25 data in this case; correct?

1 W.D. Merklin, P.E.

2 A That's correct.

3 Q And then it indicates that
4 based on the assessment of D&B, it was
5 determined that the design concentration
6 of TCE would require frequent carbon
7 changes; correct?

8 A Yes.

9 Q And that design
10 concentration of TCE is influent of 420
11 parts per billion; correct?

12 A Yes.

13 Q Was there any evaluation of
14 the frequency for carbon changes if the
15 concentrations were lower than 420 parts
16 per billion?

17 A No.

18 Q Did you have a date by which
19 you thought this 420 parts per billion
20 would reach the Levittown Water District
21 wells?

22 A No.

23 Q So you didn't do any
24 calculations as to the speed of the
25 plume, if you will, in terms of its

1 W.D. Merklin, P.E.

2 potential impact on the Levittown Water
3 District wells?

4 A No.

5 Q Then at the end of the page
6 there you talk about having designed
7 other VOC treatment facilities, that D&B
8 was familiar with the limitations of GAC
9 for treatment. "For this reason the
10 design report did not include a
11 discussion of the treatment selection
12 process;" correct?

13 A Right.

14 Q So did the Town or -- strike
15 that.

16 Did the Town ever raise a
17 concern as to why there was not a
18 discussion of the treatment selection
19 process in the design report?

20 A No.

21 Q So someone reading the
22 design report wouldn't know the basis for
23 the treatment selection; would they?

24 MR. FISHER: Objection. You
25 can answer.

1 W.D. Merklin, P.E.

2 A I don't know.

3 Q Then earlier in that
4 paragraph you say "Therefore it is our
5 opinion to a reasonable degree of
6 certainty that the best available
7 technology at the time of the preparation
8 of the design reports was PTAS;" correct?

9 A Yes.

10 Q Is that a conclusion you
11 reached in 2016 -- excuse me -- strike
12 that.

13 Was that a conclusion you
14 reached in connection with preparing the
15 design reports or was that a conclusion
16 you reached in connection with this
17 expert report?

18 A During the design report.

19 Q What does reasonable degree
20 of certainty mean to you?

21 A Those are words --

22 Q Those are words?

23 A -- in the English language.

24 Q Right. Well --

25 A A reasonable degree.

1 W.D. Merklin, P.E.

2 Q Is it 100 percent certainty,
3 10 percent certainty?

4 A Less than 100, more than 90.

5 Q More than 90, okay. Between
6 90 and 100?

7 A I don't know. I really I
8 don't -- I'm making up percentages. I
9 don't know how to answer that.

10 Q Have you used that
11 expression in your work prior to
12 preparing this expert report?

13 A I don't recall.

14 Q You don't recall preparing a
15 document where you said that it's your
16 opinion to a reasonable degree of
17 certainty something?

18 A I don't recall.

19 Q And then you also say
20 "Therefore, it is our opinion to a
21 reasonable degree of certainty."

22 By "our," are you just
23 referring to you or are you referring to
24 you and someone else?

25 A I think I'm referring to the

1 W.D. Merklin, P.E.

2 company, D&B Engineers and Architects.

3 Q Is there anybody else at
4 that company who would be expressing that
5 opinion to a reasonable degree of
6 certainty?

7 A No.

8 Q Did D&B perform any analysis
9 of how different design criteria might
10 affect the costs and effectiveness of the
11 treatment system?

12 A Can you ask that again?

13 Q Sure. The design criteria
14 of the treatment system was 420 parts per
15 billion of TCE; correct?

16 A Right.

17 Q So the question is did D&B
18 do any evaluation of how different design
19 criteria lower or higher than 420 parts
20 per billion might affect the cost and
21 effectiveness of the treatment system?

22 A No.

23 MR. LEONE: Let's take a
24 quick break. I'll get some more
25 documents.

1 W.D. Merklin, P.E.

2 THE WITNESS: Okay.

3 MR. VIDEOGRAPHER: We are
4 now off the record. The time on the
5 video monitor is 1:19 p.m.

6 (A short recess was taken.)

7 MR. VIDEOGRAPHER: We are
8 now back on the record. The time on
9 the video monitor is 1:29 p.m.

10 Q Mr. Merklin, your report,
11 just to circle back to page 4, you talked
12 about identifying the possible sources of
13 VOC contamination.

14 What criteria did you
15 consider in your search for sources?

16 A Well, we looked for known
17 spill sites that had constituents similar
18 to the ones we saw and also known spill
19 sites that had any other constituents of
20 concern.

21 Q The EDR report, did it
22 identify any VOC spill sites?

23 A I don't recall specifically.

24 Q And then so you had the EDR
25 report that looked at a radius of two

1 W.D. Merklin, P.E.

2 miles, but then you went beyond that to
3 2.5 miles, which is where the Grumman
4 site was; correct?

5 A Correct.

6 Q And is it your opinion that
7 the COCs -- excuse me -- is it your
8 opinion that the VOCs in the Levittown
9 Water District wells were solely
10 attributable to the OU-2 plume or can you
11 rule out other potential contributors?

12 MR. FISHER: Objection. You
13 can answer if you can.

14 A I think it's important to
15 realize that the scope of our work was to
16 design a treatment plant and not to
17 figure out how to remediate a plume or
18 something like that, right. So we were
19 just looking for the worst case scenario
20 so that when we build a treatment plant
21 it will be functional for the long term,
22 right.

23 You wouldn't want to spend
24 millions of dollars, build something and
25 then have it be shut down shortly

1 W.D. Merklin, P.E.

2 thereafter for some other reason.

3 Q Is it possible that in
4 approaching the matter that way that you
5 overdesign the treatment systems and set
6 it to treat levels that those wells may
7 never reach?

8 MR. FISHER: Objection. You
9 can answer.

10 A I'm going to say no because
11 there's a practical size for an air
12 stripper and even if we had designed it
13 for something less than that number, it
14 would not have been a significant
15 difference.

16 Q You didn't do that
17 evaluation though; did you?

18 A No.

19 Q I'm just going to show you
20 Exhibit 11.

21 (The above-referred-to map
22 was marked as Merklin Exhibit 11 for
23 identification as of this date.)

24 Q And this was a map that was
25 prepared by H2M with a few additions by

1 W.D. Merklin, P.E.

2 Arcadis.

3 Have you ever talked to
4 Arcadis about this project?

5 A I don't think so.

6 Q Have you worked with Arcadis
7 on other projects?

8 A I haven't worked with them,
9 but I think they may have been working on
10 investigations of sites that were
11 impacting facilities I was designing, so
12 I could have spoken to them to collect
13 data or something like that.

14 Q Do you recall doing that in
15 connection with wells -- Levittown wells
16 7A, 8A or 13?

17 A No.

18 Q Did you see this -- have you
19 seen this map before?

20 A Yes.

21 Q When did you see this map?

22 A On Tuesday.

23 Q Oh, it was shown to you in
24 your preparation for --

25 A Yes.

1 W.D. Merklin, P.E.

2 Q -- the deposition?

3 A Correct.

4 Q Okay. You didn't see it
5 prior to doing your expert report?

6 A No.

7 Q And is it your understanding
8 that this map shows contour lines that
9 H2M drew for the affected wells?

10 A That's not what those lines
11 are.

12 Q Okay. What do you think
13 those lines are?

14 A I believe those lines are
15 contributing areas for the source water
16 of the wells.

17 Q And for wells 7A and 8A,
18 those lines of area don't intersect with
19 the Grumman/NWIRP site; do they?

20 MR. FISHER: Objection.

21 I'll give you a little bit of
22 latitude here, but since he's not
23 being used as an expert on these
24 issues depicted on here, I'm not sure
25 where you're headed, but you can

1 W.D. Merklin, P.E.

2 continue.

3 MR. LEONE: Okay.

4 A Is the thick black line,
5 that's the boundary of the site?

6 Q Correct.

7 A So the lines do not
8 intersect -- the white lines don't
9 intersect the black lines. I could tell
10 you that.

11 Q Okay. And then where it
12 says 8-01 and 8-02, those are Hicksville
13 Water District wells, 8-1 and 8-2 and the
14 numbers there are the Freon numbers which
15 were 42 and 80 -- 82.9 parts per billion.

16 MR. FISHER: Well, you're
17 asking him -- you're telling him --

18 MR. SCHUMACHER: You said
19 82.

20 MR. LEONE: Oh, I'm sorry.

21 MR. FISHER: You're asking
22 him -- you're telling him for purpose
23 of your questions that those are
24 Hicksville wells and those numbers
25 represent something?

1 W.D. Merklin, P.E.

2 MR. LEONE: Correct.

3 MR. FISHER: Okay.

4 MR. LEONE: Yes. So let me
5 start again.

6 Q I will represent to you that
7 the wells shown here are Hicksville well
8 8-01 and 8-03 and they show Freon
9 concentrations of 42 and 82.9 parts per
10 billion.

11 Were you aware of that
12 information at the time you did your
13 design report?

14 A No.

15 Q If you had been aware of
16 Freon concentrations upgradient of wells
17 7A and 8A, would that have effected your
18 opinion as to the source of the
19 contamination at wells 7A and 8A?

20 MR. FISHER: Objection. You
21 can answer.

22 A I'm not sure.

23 Q That's information that you
24 would have considered?

25 A Yes. I would have looked at

1 W.D. Merklin, P.E.

2 it.

3 Q And then this map also shows
4 wells for Levittown. I will represent to
5 you those are Levittown Water District
6 wells 1A and 2A that also show Freon
7 levels comparable to the Freon levels in
8 well 13 at the time of your report.

9 Do you know the source of
10 that Freon?

11 A No.

12 MR. FISHER: Objection. You
13 can answer.

14 Q Can you rule out that
15 whatever the source of Freon for
16 Hicksville 8-1 and 8-3 and Levittown 1A
17 and 2A are -- is also the source that is
18 affecting wells 7A, 8A and/or 13?

19 MR. FISHER: Objection. You
20 can answer.

21 A I don't have enough
22 information to draw a conclusion that
23 quickly.

24 Q But you can't rule it out as
25 a potential possibility; right?

1 W.D. Merklin, P.E.

2 MR. FISHER: Objection. You
3 can answer.

4 A I can't rule what out?

5 Q That whatever the source of
6 the Freon is for those Hicksville and
7 Levittown 1A, 2A wells is, it's the same
8 source as for 7A, 8A and 13?

9 A I can't rule it out, but
10 I -- I can't draw any conclusion. It's
11 really a meaningless response.

12 Q And you didn't look for
13 information about Freon levels in public
14 water supply wells to the west and north
15 of wells 7A, 8A or 13; did you?

16 A I don't know if we did.

17 Q You don't recall doing that?

18 A I don't recall.

19 Q I'll show you Exhibit 12.

20 (The above-referred-to
21 e-mail and drawings were marked as
22 Merklin Exhibit 12 for identification
23 as of this date.)

24 Q And this is an e-mail that
25 was in the recent production from D&B.

1 W.D. Merklin, P.E.

2 It's from you to Mr. Reinhardt --

3 A Uh-huh.

4 Q -- is that correct?

5 A Yes.

6 Q And I'm showing it to you in
7 the order that these documents were
8 produced. You can see at the bottom it
9 has what we call Bates numbers that run
10 from 1, 2, 3, that was the order that
11 these documents were produced and the
12 cover e-mail says "Please see the
13 attached highlights from our
14 investigation into the source of the
15 contamination. It appears most likely
16 that the Grumman plume is the source. I
17 have marked the key language from the
18 PWSCP report prepared by Arcadis in 2003
19 and some more recent data."

20 Is the information that is
21 attached to this e-mail the attached
22 highlights that are referred to in the
23 e-mail?

24 A Well, I don't recall, but if
25 it was provided that way, that would seem

1 W.D. Merklin, P.E.

2 to be the case.

3 Q And then the second page of
4 this exhibit shows an Arcadis map and
5 then it has some handwriting. Is that
6 your handwriting on it?

7 A No.

8 Q Do you know if it's Mr. --
9 well, strike that.

10 Do you know whose
11 handwriting it is?

12 A I don't.

13 Q And then likewise the next
14 page, page 3, has an excerpt from an
15 Arcadis report and it also has some
16 handwriting at the bottom, "Draft e-mail,
17 contact DEC" it looks like it says. Is
18 that your handwriting?

19 A No.

20 Q Was there somebody at D&B
21 who was helping you with the
22 investigation whose handwriting that
23 might be?

24 A Yes.

25 Q Who is that?

1 W.D. Merklin, P.E.

2 A I think it would probably be
3 someone named Anthony Caniano (phonetic).

4 Q What did he do?

5 A He works in our
6 environmental compliance division and
7 often when we are doing these projects,
8 we reach out to that division to help us
9 identify the source because that's the
10 type of work they do. They do remedial
11 investigations and things like that.

12 Q Other than these documents,
13 did he provide you with any information
14 about the source?

15 A I don't recall.

16 Q And it references -- I think
17 it says contact DEC. Do you -- did you
18 have any discussions with DEC about well
19 7A -- strike that.

20 Assuming that DEC is the New
21 York Department of Environmental
22 Conservation, did you have any
23 conversations or contacts or
24 communications with DEC about wells 7A,
25 8A or 13?

1 W.D. Merklin, P.E.

2 A I believe we did.

3 Q What do you recall about
4 those discussions or those
5 communications?

6 A I -- I don't recall
7 specifically, but I think maybe we wrote
8 a letter and maybe we had a phone call,
9 but I'm not really sure.

10 Q Did that concern asking them
11 for information or prior data?

12 A I don't remember.

13 Q Did DEC ever express an
14 opinion as to the source of the
15 contamination at well 7A, 8A or 13?

16 A I just don't remember.

17 Q Going back to your report,
18 Exhibit 3 at page 5, the first paragraph
19 says "Well 7A and 8A are located within a
20 residential neighborhood, therefore a
21 goal of this project was to design the
22 treatment facility to limit the visual
23 impact to the surrounding community."

24 What does that mean?

25 A The Town wanted us to put

1 W.D. Merklin, P.E.

2 the air stripper -- the air stripper, the
3 towers inside a building enclosure.

4 Q Have you done that at other
5 sites?

6 A Yes.

7 Q Is that more expensive to
8 put the towers inside a building
9 enclosure?

10 A Yes.

11 Q Did you evaluate how much
12 more expensive?

13 A No.

14 Q There's no health based
15 reason or regulatory reason for the
16 design of the building enclosure;
17 correct?

18 MR. FISHER: Objection. You
19 can answer.

20 A That's correct.

21 Q And well 7A and 8A -- well,
22 strike that.

23 Can you describe then the
24 wells 7A and 8A treatment system? Is
25 it -- is there one treatment system for

1 W.D. Merklin, P.E.

2 both wells 7A and 8A?

3 A Yes.

4 Q So the same water comes up
5 from 7 or up from 8 and goes into the
6 treatment system?

7 A That's correct.

8 Q And then the treatment
9 system is two stripping towers that are
10 shorter than one stripping tower --
11 strike that.

12 Is the treatment system two
13 stripping towers?

14 A Yes.

15 Q Does the same water go
16 through both?

17 A Yes.

18 Q And then it goes to --
19 excuse me. Then the air emissions go to
20 a GAC system; is that right?

21 A Correct. Only from one of
22 the towers. I think the first tower.

23 Q Okay.

24 A That might not be true.
25 Actually, I'm not sure about that. At

1 W.D. Merklin, P.E.

2 least one of them, maybe two of them.

3 Q Are there -- do you recall
4 if there's separate -- when you say the
5 two towers, those are the two stripping
6 towers?

7 A Correct.

8 Q And if the same water goes
9 through the towers when -- well, strike
10 that.

11 Do you recall if the air --
12 GAC air treatment system is attached to
13 one of the towers or both or --

14 A That's what I'm saying.

15 Q Okay.

16 A I'm not sure if it's one or
17 both.

18 Q I see.

19 A I don't recall.

20 Q If it's not on one, does
21 that one have air emissions or is the
22 treatment system on the second tower if
23 you will?

24 A Right. So if -- definitely
25 the first tower would have it because

1 W.D. Merklin, P.E.

2 there's higher concentrations coming out
3 in the air from the first tower.

4 The second tower may or may
5 not have it. I just don't remember.

6 Q Could those two towers have
7 been built as one single taller tower?

8 A Yes.

9 Q And did you evaluate the
10 relative costs of one versus two towers
11 for 7A and 8A?

12 A No. We were trying to keep
13 a minimum height for the building to fit
14 into the community.

15 Q The one taller tower,
16 however, would have been just as
17 effective as the two towers; correct?

18 A From a treatment point of
19 view, it would have been effective.

20 Q Have you been to this site?

21 A Yes.

22 Q And --

23 MR. FISHER: Just be clear
24 for the record what site you're
25 referring to.

1 W.D. Merklin, P.E.

2 MR. LEONE: Fair enough.

3 Q Have you been to the site of
4 well 7A and 8A?

5 A Yes.

6 Q I'd like to show you what
7 we've marked as well -- excuse me -- as
8 Exhibit 17 in earlier deposition. I
9 believe Mr. Reinhardt's.

10 And can you describe for me
11 what this picture shows, if you know?

12 A In the foreground is the
13 existing wellhouse building and in the
14 background is the new packed tower
15 aeration system building.

16 Q And these are -- these are
17 sitting in a field; right?

18 A Yes.

19 Q Across from a bowling alley?

20 A Correct.

21 Q What specific information
22 did you have, if any, that indicated that
23 a -- that there was a need to limit the
24 visual impact of the treatment systems?

25 A It was requested by the

1 W.D. Merklin, P.E.

2 Town.

3 Q How did you come up with the
4 specific design of the building that
5 enclosed the treatment system?

6 A We prepared some
7 architectural renderings and provided
8 them to the Town and they selected one.

9 Q And they?

10 A They selected this one.

11 Q Were there different costs
12 in the different -- associated with the
13 different renderings or did you not get
14 to that point?

15 A I don't remember.

16 Q So then when Exhibit E to
17 your report was prepared, the contract
18 plans and specifications, that included
19 the cost of construction of this
20 building, correct, the 7A, 8A treatment
21 system building?

22 A I don't think I understand
23 that question.

24 Q Sure. We marked as Exhibit
25 E the cover page for the construction

1 W.D. Merklin, P.E.

2 documents for wells 7A and 8A.

3 A Uh-huh.

4 Q Did that also include --
5 these documents also include the
6 construction of the building that the
7 treatment towers were enclosed in?

8 A Yes.

9 Q In your report on page 5,
10 paragraph 3, it has the cost that we
11 mentioned earlier and you say "Based on
12 our experience with the costs for similar
13 treatment facilities constructed in
14 Nassau County, the cost for this facility
15 is considered typical and reasonable."

16 What's the basis for that
17 conclusion?

18 A We looked at other
19 facilities that we've designed and that
20 were constructed and the bid prices and
21 in fact an amount that was actually paid.

22 Q Did you collect those --
23 that information in a document somewhere?

24 A No.

25 Q You got it just from

1 W.D. Merklin, P.E.

2 reviewing your prior projects?

3 A Yeah.

4 Q And did you review projects
5 that were conducted by other engineering
6 firms?

7 A No.

8 Q Have you ever offered expert
9 opinions that cost of construction of
10 treatment facilities were typical and
11 reasonable?

12 A No.

13 Q And that opinion is based on
14 your experience with your projects;
15 correct?

16 A Correct.

17 Q It's not based on any sort
18 of objective criteria; is it?

19 MR. FISHER: Objection. You
20 can answer.

21 A No.

22 Q All right. Then on page 5
23 it goes on to talk about well 13 and well
24 13 is also bounded on at least two sides
25 by a residential neighborhood; right?

1 W.D. Merklin, P.E.

2 A No, one. Maybe one side.

3 Q Okay. And visual concerns
4 weren't an issue -- were not an issue
5 with well 13?

6 A The Town was not concerned
7 about that site.

8 Q And then your conclusion
9 that the cost for design and construction
10 is typical and reasonable is based on the
11 same information that your opinions for
12 well 7A and 8A is based on; correct?

13 A Yes.

14 Q All right. So going to the
15 conclusions section of your report it
16 says "To summarize the analyses presented
17 above, we provide the following
18 conclusions to a reasonable degree of our
19 engineering certainty."

20 Is engineering certainty
21 different from the reasonable degree of
22 certainty you mentioned earlier?

23 A I would say that's about the
24 same thing.

25 Q The first bullet point

1 W.D. Merklin, P.E.

2 you from Ms. Ramirez again at Nassau
3 County Department of Health. It's dated
4 August 25, 2018, authorization to operate
5 Levittown WD wells numbers 7A, 8A and
6 packed tower aeration system; correct?

7 A Yes.

8 Q Do you recognize this
9 letter?

10 A Yes.

11 Q And what does -- what does
12 this letter allow D&B to do?

13 A It actually allows the Town
14 to place the treatment plant into
15 operation.

16 Q And then is the well -- were
17 the wells not pumping until the treatment
18 plant was placed in operation?

19 A Right.

20 Q The second paragraph says
21 "The improvements at the Bowling Lane
22 plant consisted of the replacement of
23 well numbers 7A, 8A, pumps and pump
24 piers, relocation of the lime injection
25 point, the construction of an indoor two

1 W.D. Merklin, P.E.

2 tower aeration system designed to reduce
3 a raw water influent concentration of
4 420 micrograms per liter of
5 Trichloroethene, TCE, to an effluent
6 concentration of less than 1 microgram
7 per liter and the installation of
8 granular activated carbon vessels to
9 treat the tower's emissions;" correct?

10 A Yes.

11 Q Now, we've certainly talked
12 about the two tower aeration system and
13 the granulated activated carbon vessels.

14 Why was the replacement of
15 pumps and pump piers, relocation of the
16 lime rejection point and replacement of
17 the chlorine treatment and addition of
18 phosphate treatment for well 7A done?

19 A The lime injection point had
20 to be relocated downstream of the air
21 stripper so that the lime didn't foul the
22 media in the air strippers.

23 Oh, I skipped over the pump
24 piers. Okay. The pumps were replaced.
25 I'm sorry. I'm jumping around here.

1 W.D. Merklin, P.E.

2 Q Sure.

3 A I apologize.

4 The pumps were replaced
5 because of the different head conditions
6 that they were pumping against. So
7 reduced head conditions going to the air
8 stripper compared to when it was going
9 into the system.

10 The pump piers I'm not sure
11 what that issue was, but quite often we
12 have to raise the elevation of the pump
13 heads to comply with the sanitary code
14 and a lot of times in older installations
15 didn't have that feature.

16 The lime injection point I
17 answered.

18 Chlorine treatment equipment
19 I think was just antiquated and had to be
20 replaced.

21 And the phosphate treatment
22 I don't know. I think the phosphate
23 treatment most likely for sequestering
24 either iron or manganese to prevent the
25 fouling of the media in the air stripper.

1 W.D. Merklin, P.E.

2 Q So do you mean the pumps, a
3 larger caliber pump had to be used
4 because you were now pumping water into
5 the -- into the treatment system?

6 A Actually a smaller pump.

7 Q Okay.

8 A It was a lower head
9 condition.

10 Q What do you mean by head
11 condition?

12 A The total dynamic head is
13 the pressure that a pump generates, so
14 when it's pumping into the distribution
15 system, it's a much higher pressure than
16 it is pumping into an air stripper.

17 Q Okay. And what is a pump
18 pier?

19 A It's just the concrete base
20 that supports the pump.

21 Q So the phosphate treatment
22 was to facilitate the air stripping and
23 carbon treatment; correct?

24 A I'm -- I'm not really sure.

25 Q Okay.

1 W.D. Merklin, P.E.

2 A I'm speculating that it was
3 installed to sequester iron or manganese
4 or both.

5 Q But you're not sure?

6 A I don't really remember.

7 Q Okay. And then so the items
8 that we just talked about, none of
9 those -- well, strike that.

10 Do you know if any of the --
11 strike that.

12 Did you do an analysis of
13 costs that were incurred that were
14 specifically related to the treatment
15 system as opposed to updating antiquated
16 systems or replacing other things because
17 you were working on the well?

18 A No.

19 Q There were some aspects of
20 the improvements that were not required
21 by the wellhead treatment system; weren't
22 there?

23 A Yes.

24 Q And you haven't quantified
25 those?

1 W.D. Merklin, P.E.

2 A No.

3 Q Is the same generally true
4 for plant 13, excuse me, for well 13?

5 A To a lesser degree, yes.

6 Q So this letter was the
7 Nassau County approval for the operation
8 of the treatment system.

9 Was there any approval
10 obtained by -- from this New York State
11 DOH or New York State DEC or EPA or any
12 other federal or state environmental
13 agency?

14 A No.

15 (The above-referred-to
16 letter was marked as Merklin Exhibit
17 19 for identification as of this
18 date.)

19 Q Exhibit 19 is a letter,
20 another letter from Ms. Ramirez to you.
21 This one is November 24, 2014. It
22 relates to well 13 and the review of the
23 design report for that well; correct?

24 A Yes.

25 Q And 7A again asks about --

1 W.D. Merklin, P.E.

2 MR. FISHER: You're talking
3 about on Exhibit 19?

4 MR. LEONE: Yes.

5 MR. FISHER: Bullet 7A?

6 MR. LEONE: Correct.

7 Q It talks about the plume
8 monitoring well depicted in Appendix A
9 that contains 420 micrograms per liter of
10 TCE.

11 And then do you recall
12 anything else about that discussion or we
13 should just look at your answer?

14 A We should look at my answer.

15 Q Okay. And then number 9 in
16 this exhibit, item 9B says "Please
17 include an evaluation of available
18 technologies for off-gas treatment in a
19 manner similar to the report's discussion
20 on waste water" -- excuse me -- "on water
21 treatment alternatives and give reasons
22 for selecting the one recommended."

23 Is that something that you
24 did in the revised report?

25 A I believe we did.

1 W.D. Merklin, P.E.

2 Q And on page 3, item 9E talks
3 about changing -- it talks about the
4 vapor phase carbon usage rate and
5 changing every 88 days.

6 Why were there differences
7 in the assumptions of carbon change
8 rates?

9 A Differences between?

10 Q Between 7A, 8A and 13.

11 A I would assume because one
12 system is for a single well and the other
13 is for two wells.

14 MR. LEONE: The next
15 exhibit, Number 20.

16 (The above-referred-to
17 letter was marked as Merklin Exhibit
18 20 for identification as of this
19 date.)

20 Q And Exhibit 20 is a letter
21 dated January 16, 2015 concerning well
22 13A to Ms. Ramirez, which says it's a
23 response to your letter dated November
24 24, 2014.

25 So is this a response to

1 W.D. Merklin, P.E.

2 Exhibit 19 that we just looked at?

3 A Yes.

4 Q And here on item 7A it's in
5 response to the question about the source
6 of the 420 parts per billion of TCE. It
7 says "Data from monitoring well 34D
8 collected during the April-August 2013
9 sampling period exhibited concentration
10 of TCE at 330 parts per billion at a
11 depth of 319 feet;" correct?

12 A Yes.

13 Q 330 parts per billion isn't
14 the same thing as 420 parts per billion;
15 right?

16 MR. FISHER: Objection.

17 A That's right.

18 MR. FISHER: You can answer.

19 Q Can you answer?

20 A Oh, I'm sorry. I said
21 that's right.

22 Q I'm sorry. I didn't hear
23 you over the objection.

24 Why then was the data from
25 well 34D that shows 330 parts per billion

1 W.D. Merklin, P.E.

2 the basis of design criteria of 420 parts
3 per billion?

4 A Well, we were really looking
5 at an average of multiple monitoring
6 wells, so we chose 420 as a more
7 conservative number.

8 Q And your response to this
9 date -- excuse me. Your response to NC
10 DOH doesn't say you're looking at
11 averages, though, and doesn't identify
12 any other number; does it?

13 A It doesn't.

14 Q And then the depth of well
15 34D is 330 -- excuse me -- the depth of
16 34D is 319 feet; correct?

17 A Yes.

18 Q And that's far shallower
19 than well 7, 8 -- 7A, 8A or 13; isn't it?

20 A It is shallower.

21 Q It's about half the depth of
22 well 13; isn't it?

23 A Well, again, the screen zone
24 is a wider range. It's not just the
25 depth of the well so, no.

1 W.D. Merklin, P.E.

2 Q Well, the maximum depth is
3 700, over 700 feet; isn't it?

4 A Right, but we don't know
5 where -- in this conversation right now,
6 we don't know where the top of that
7 screen is.

8 Q Okay. And in determining
9 the design criteria, did you do any
10 evaluation of where the tops of the
11 screens were?

12 A I would assume we did, but I
13 don't recall.

14 Q Was that documented
15 anywhere.

16 A No.

17 Q Then I think we already
18 looked at the location of well 34D. It's
19 about a mile northeast of well 13;
20 correct?

21 MR. FISHER: Objection, but
22 you can answer.

23 Q You can look at Exhibit 11
24 and I think we already discussed this as
25 well.

C E R T I F I C A T I O N

I, LISA H. MACDONALD, a Registered Professional Reporter and a Notary Public, do hereby certify that the foregoing witness, WILLIAM D. MERKLIN, was duly sworn on the date indicated, and that the foregoing is a true and accurate transcription of my stenographic notes.

I further certify that I am not employed by nor related to any party to this action.

A handwritten signature in black ink, reading "Lisa H. MacDonald". The signature is written in a cursive, flowing style.

LISA H. MACDONALD, RPR